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Testimony for presentation on 20 May 1999

United States Senate
Committee on Commerce, Science, and Transportation
Subcommittee on Science, Technology, and Space
SH-428 Hart Senate Office Building
Washington, DC 20510-6125

Attention: Senator Bill Frist, M.D.
Subcommittee Chairman

Subject: Barriers to the Growth of the Commercial Space Launch Industry

Dear Mr. Chairman,

Thank you, Mr. Chairman, for the opportunity to discuss both the growth problems currently being faced by the U.S. Commercial Space Launch Industry as well as several proposed solutions. My comments on barriers to growth and assessment of potential solutions are based on my experience as the President of a firm actively involved in the development of an extraordinary launch system. Space Access, LLC, is currently poised to transition from “Research and Development” of basic technologies to “Development and Production” of a reusable launch system. Our system is based upon proven breakthroughs in propulsion yielding an order of magnitude greater fuel efficiency than the best available rocket. This increase in performance allows us to incorporate provisions, found heretofore only in aircraft, which enhance the launch system’s producibility, operability, reliability, and maintainability. The result is a system that is capable of dependably and inexpensively deploying a complete spectrum of payloads, including even the largest commercial, military, and civil satellites, as well as the deployment, re-supply, and recovery of International Space Station modules, cargo, and crew. As evidence that we are at the dawn of a new era in space transportation, we recently submitted our design, analysis, and test results as well as our licensing and certification plan to the FAA for their approval—and we understand that the FAA is considering ultimately issuing Space Access both a traditional launch license as well as a “transport” category certificate which, to date, have only been issued to certify that transport aircraft meet the FAA’s stringent reliability standards.

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Our development accomplishments to date have been financed exclusively by private investment. Our transition to the next stage of our development plan is dependent upon our ability to raise a sizeable increment of additional capital. The commercial financial marketplace is keenly aware of the Government's traditional role in the development of launch systems, however, and frankly appears to be reluctant to expand its participation in the launch services industry based upon its judgment that the Government is continuing to just support the "status quo"—relatively big Government contracts to the "Big Names" in the industry for evolutionary improvement in capability. This sends out the message that new, state-of-the-art systems should not be expected anytime soon. In return, the United States continues to pay the price associated with the existing launch infrastructure: expensive services, catastrophic losses of payloads, and stagnation of this critical industry in spite of continuing increases in the demand for services.

Probably the best indication of this "status quo" mentality is evident in the results of a recently completed NASA contract, which was initiated to identify more cost-effective and reliable alternatives for the Space Shuttle. After reviewing a number of new concepts, including our SPACE ACCESS™ SA-1 Launch System, the conclusion from NASA appears to be that no one in the industry—large or small—is capable of offering a viable solution to the current problems facing the U.S. launch industry out through possibly as far as 2012. That is nearly twice the duration of the entire Apollo project. Naturally, Space Access as well as other firms in the industry do not necessarily agree with this relatively bleak assessment of the future.

The obvious question then is, "What can be done to correct the situation?" Well, Senate Bill S469, the "Commercial Space Transportation Cost Reduction Act of 1999" has certainly already shaken up the "status quo" by offering a means for both large and small firms to develop new systems that will satisfy the growing demand for services based upon Government-supported loan guarantees. As the Government will continue to be a potential customer for any resulting commercially developed new system, services will be obtained by the Government at the lower costs made possible by features and capabilities of the new systems. The result is that the return to the Government for its support is lower costs that will make possible the "self-funding" of the legislation.

Some in the industry have indicated they would rather have Government tax credits than loan guarantees; however, it is not clear that tax credits would be sufficient, by themselves, to attract the whole new class of investors required to finance the initial production of dramatically better launch systems. Government Advance Purchase Agreements are favored by some, but such agreements include appropriations issues, as well as extensive contracting provisions to provide Government protections that may be in conflict with the intellectual property rights expectations of entrepreneurs. Still others in the industry just plain fear that any "new" approach for Government participation in the industry will result in unacceptable changes in funding levels for such historical program objectives as basic technology development, hardware

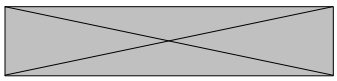
upgrade, federal range upgrades, etc. Each of these “fears”, however, represent the normal concern and reluctance to accept change in the “status quo.” A careful review of the provisions of S469 indicates that, in fact, all participants developing next-generation launch systems are served by the expansion potential of the industry made possible by its implementation and the even-handed rules for application of the Government support provided.

As a member of the industry, I look forward to the expansion of our ability to raise the necessary capital required for the continued development of our products made possible by enactment of “The Commercial Space Transportation Cost Reduction Act of 1999.” I feel confident in stating that my company, backed by its strategic partners and commercial investors and with the assistance of the loan guarantees provisions as prescribed in S469, would, within five years, bring to market a launch system that would revolutionize the world’s access to space, resulting in a dramatic increase in the development and introduction of new space-related products and services for the benefit of the United States. I cannot, in good conscience, make the same claim in support of any other launch industry incentive initiative of which I am aware.

The growing demand for reliable and cost-effective launch services such as those being developed by Space Access has never been more apparent, but alternate, less attractive and more expensive means will remain the norm without the timely passage of this Legislation. Hence, your attention and prompt resolution of this matter is truly appreciated, since any delays will merely tend to further reinforce the status quo. I would be pleased to provide any additional information and detail you may require.

Very truly yours,

SPACE ACCESS, LLC



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